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The Impact of the College Experience on Students' Learning for a Diverse Democracy

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Introduction

Creating responsible citizens is a task “colleges can be expected to undertake, for it reflects nothing more than a recognition of and recommitment to the traditional ideal of education as preparation of young people for civic life in a free society” (Barber, 1997, p. 228). Higher education’s role in preparing an informed citizenry dates back to the time of Jefferson, who maintained that broad civic participation in our nation required an education rooted in civic pedagogy (Gurin, Dey, Hurtado & Gurin, 2002). More contemporary theorists, such as Gutmann (1987), equate civic learning with the intentional social reproduction purpose of higher education—one that is focused on student learning about democracy and civic engagement. Today, however, some contend that American democracy is facing an endemic disaffection from civic engagement (Putnam, 2000), and that students are prone to excessive individualism and a lack of accountability toward one another (Halstead, 1989). Although a growing number of national reports and committees focus on issues of civic renewal, controversy still remains over the role of higher education and minimal research attention has focused on documenting how colleges promote the development of civic values and responsibility among students (Colby, Ehrlich, Beaumont, Rosner, & Stephens, 2000).

More importantly, our society has become increasingly complex and the rights of citizenship have been extended to a more diverse population. Unlike the Jeffersonian period, in which democracy and citizenship required social homogeneity, simplicity, and an overarching common identity, today’s democracy is characterized by heterogeneity, complexity, and multiple group affiliations and identities (Gurin, Peng, Lopez, & Nagda, 1999). The heterogeneity of American society, for instance, is evinced by employment projections that suggest “minorities will account for slightly more than half of net new entrants to the U.S. workforce” in the next

decade (Judy & D'Amico, 1997, p. 6). The complexity that such diversity brings to the workforce is underscored by the business community's need for future employees who possess specific competencies that will enable them to work effectively in an increasingly diverse and global marketplace (Bikson & Law, 1994). Such competencies include the ability to work effectively in groups composed of diverse individuals, openness to new ideas and perspectives, and empathy toward other workers' perspectives. Further, the existence of multiple group identities is clearly illustrated by the burgeoning number of Americans (6.8 million) who reported more than one race on the 2000 census (Census, 2001). Thus, it is essential that higher education takes on a larger role in providing students with the skills and dispositions necessary to succeed in a society with complex social problems and a democracy characterized by pluralism.

Much of the research focusing on the development of democratic outcomes among college students, however, remains at an incipient stage of development, with many questions unanswered regarding how colleges specifically affect such development among their student bodies. Although numerous studies have shown that college influences citizenship development (Sax, 2000; Pascarella & Terenzini, 1991), few studies have isolated what aspects of the college experience are responsible for such growth. In response to these gaps in the extant knowledge base, a research project funded by the Department of Education was launched in 1999 to better understand how colleges and universities are preparing students for the challenges of a diverse democracy. The present study represents a follow-up from an earlier study (Hurtado, Engberg, Ponjuan, & Landreman, 2002) in which students' precollege experiences were investigated to understand how students' entering dispositions influenced a range of democratic outcomes. In particular, this study focuses on the first two years of college to determine what aspects of the college experience prepare students to enter an increasingly diverse and complex democracy.

It is important to note, however, that conceptions of democracy, perspective-taking, attitudes about diversity, and other college outcomes can be shaped by socio-historical events, which also influence the college environment (Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Weidman, 1987). With the exception of a few models that posit its influence, these period effects are largely ignored in the college impact literature. However, the current study was well underway when terrorists attacked the World Trade Center and the Pentagon on September 11, 2001, and students as well as campuses responded with a host of activities. These events likely affected students' feelings about our nation and its place in the world, especially students attending the three east coast campuses included in this study. Therefore, as researchers, we felt obligated to introduce student's engagement with 9/11 activities as part of a large-scale social influence that likely affects this cohort in distinct ways.

Review of Literature

In a recent study, Gurin et al. (2002) present a clear articulation of the theory linking diversity to learning and democratic outcomes among college students. Their conceptualization is based on Erikson's (1946, 1956) theory that identity develops best when adolescents are afforded a psychosocial moratorium in which they are free to experiment with differing social roles before making permanent social, political, and occupational commitments. Researchers have shown the relevance of Erikson's moratorium to higher education, demonstrating the malleability of students' social and political attitudes during the college years and the relative stability of such attitudes twenty-five and fifty years later (Newcomb, 1943; Newcomb, Koenig, Flacks, & Warwick, 1967; Alwin, Cohen, & Newcomb, 1991). Gurin et al. posit that if such a moratorium includes "a confrontation with diversity and complexity," students are more likely to think actively and make informed decisions about their future commitments (p. 334).

Researchers, for instance, have shown that discrepancy, discontinuity, and uncertainty are important triggers of cognitive growth (Piaget, 1975/1985; Ruble, 1994). Given that many students today enter college from relatively segregated residential and educational environments (Orfield, 2001), the extent to which they encounter diversity in college is an important antecedent of future democratic learning.

While there are many ways to conceptualize the types of skills and dispositions necessary to succeed in today's diverse democracy, this study relies on a particular set of constructs developed in both Gurin et al.'s (2002) and Hurtado et al.'s (2002) earlier work. In particular, this study examines three democratic outcomes: perspective-taking, beliefs that conflict enhances democracy, and the importance students' place on social action engagement. Perspective taking refers to students' ability to consider another's point of view and appreciate that multiple perspectives exist on any given issue. The view that conflict enhances democracy is an outcome based on students' understanding that both conflict and difference are normal and healthy attributes of a functioning democracy. Social action engagement refers to the importance students' place on activities that specifically affect the social and political structure and their role in creating social change. In order to understand how the college experience influences each of these democratic outcomes, the review that follows is organized around three central premises that are the basis of this study. First, we establish how today's democracy is one in which both democracy and difference are compatible. Second, we posit that democratic learning occurs through social interaction, especially among diverse peers. Third, we begin to establish that within college variables that structure student opportunity both inside and outside the classroom can influence democratic outcomes.

Diversity and Democracy

Within American society, there are a number of competing discourses that address the notion of democratic citizenship. March and Olsen (2000) suggest that “how we think about the formation of democratic citizens depends on the specific conception of democracy we embrace” (as cited in Galston, 2001, p. 218). Thus, common conceptions of democracy (e.g., liberal individualist, direct participatory), which privilege individuals and similarities over groups and differences, are challenged by the increasingly heterogeneous U.S. population (Gurin et al., 2002). An alternative and more recent discourse on democratic citizenship calls for a “differentiated citizenship” as the best means to realize a full and participatory form of citizenship (Young, 1989). A differentiated citizenship underscores the belief that in order to construct a democracy based on equal representation, differences must be recognized, valued, and considered in the context of democratic decision-making. Guarasci and Cornwell (1997) build on this concept by articulating a new ideal of the democratic community in which both “difference and connection can be held together yet understood to be at times necessarily separate, paradoxical, and in contradiction to one another” (p.3).

Each of the democratic traditions influences the conceptualization of civic education in American society. The debate over civic education is multi-faceted: Some skeptics believe there is no need for any publicly defined civic education; others believe any specification of civic education is incompatible with the differing conceptions of a moral life; and still others view any form of unitary civic education as incompatible with the autonomy and conscience of individuals in a diverse society (Galston, 1989). Theorists such as Amy Gutmann (1987, 1989) contend that teaching students skills at rational deliberation while emphasizing mutual respect for diverse, if not antagonistic ways of life, is sufficient in reproducing the social order and ensuring individual

liberty. In contrast, Wingo (1997) advocates a breed of civic education that cultivates political loyalty by inculcating the affection for heroes (real or mythological) that “exemplify the virtues of and reinforce a love for one’s liberal state” (p.283).

Despite these differing perspectives, the AAC&U (1995), through its American Commitments Initiative, envisioned the central goal of civic education as a commitment to pluralism in which students are provided opportunities to engage and learn across difference. Civic learning incorporates an understanding of the complexities of self-governance while helping students appreciate multiple perspectives, value human and cultural diversity, and make informed choices. In order to become active participants in public life and democratic decision-makers, students must develop what Guarasci and Cornwell (1997) call “the arts of democracy.” These include a variety of skills and dispositions that teach students to appreciate “ambiguity, contradiction, and nuance...(and) accept the coexistence of difference and sameness” (p.9). In the most recent report about student learning for the 21st century, AAC&U (2002) advocates a college level education that produces an “empowered, informed, and responsible” student capable of negotiating the inevitable differences in a diverse society (p. xi).

Democratic Learning and Social Interaction

A number of theorists suggest that students learn and acquire skills through social interaction. Piaget (1975/1985), for instance, posited that cognitive and social development are based, in part, on the disequilibrium that occurs when one tries to reconcile their own embedded view with that of another. Other researchers, such as Chickering and Reisser (1993), contend that students entering college are more likely to apply cognitive abilities and skills to interpersonal situations and social problem-solving skills. Although Piaget did not specifically mention how interacting across difference (e.g., race) might act as an additional catalyst for

student development, a number of researchers have demonstrated that interactions with diverse peers influence the development of a wide range of skills and dispositions: openness to diversity and challenge (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996; Whit et al., 1998); commitment to promoting racial understanding (Milem, 1994; Astin, 1993; Vogelgesang, 2001); intellectual and social self-confidence (Chang, 1996); and leadership and cultural knowledge (Antonio, 2001).

Two studies are particularly relevant to the current study on democratic outcomes. Hurtado et al. (2002) demonstrated that the frequency in which students interact with diverse peers prior to entering college is a positive, significant predictor of perspective-taking, beliefs that conflict enhances democracy, and the importance students place on taking social action. Gurin et al. (2002) also found that interaction with diverse peers positively influenced students' compatibility with difference and citizenship engagement across all racial groups four years after college entry. These effects remained significant even when controlling for students who took courses that focused on diversity. While these results were based on a national database (i.e., CIRP), the results were somewhat different in a single institution. In the single institution study, students' experience in informal interactions with diverse peers was a significant predictor of students' views of compatibility with difference across all race groups, but the effects on perspective-taking and racial/cultural engagement were only significant for white students. The current study is an attempt to further examine similar outcomes across all student groups, identifying which groups differ in their outcomes and introducing some additional controls to understand distinctions in students' frequency, quality, and context for interaction with diverse peers.

Democratic Learning and the College Environment

There are a number of studies that link students' involvement in curricular and co-curricular experiences with a range of learning and democratic outcomes. Chang's (2002) study, for instance, revealed that students who completed a course that met their campus diversity requirement showed lower levels of modern racism (see McConahay, 1986) compared to students who were just beginning a course. Hurtado (2001) also found strong positive correlations among students who enrolled in a women's or ethnic studies course and their critical thinking, leadership, and awareness, acceptance, and tolerance of diverse others. Similarly, Gurin et al. (2002) discovered that classroom diversity was a strong determinant of a range of democratic outcomes (i.e., perspective-taking, compatibility of difference, racial/cultural engagement), although these effects differed across racial groups.

A number of researchers have also examined how intergroup dialogue and service-learning courses influence diversity-related outcomes. Intergroup dialogue programs bring students from diverse social identity groups (e.g., race, gender, sexual orientation) together in order to promote communication across difference, practice constructive intergroup relations and coalition building, and develop skills necessary for working and living in multicultural communities (Schoem, Hurtado, Sevig, Chesler, & Sumida, 2001; Vasquez Scalera, 1999; Zúñiga & Nagda, 1993). Several studies investigating the effects of intergroup dialogue programs uncovered consistent, positive effects for both White students and students of color: greater commonality and less divisiveness among different groups, heightened racial awareness, more support for affirmative action and multicultural programs, and increased awareness of the structural causes of inequality (Gurin Peng, Lopez, & Nagda, 1999; Lopez, Gurin, Nagda, 1998; Nagda, Gurin, Lopez, in press; Gurin, Nagda, Lopez, in press).

Researchers have also argued that service-learning courses provide opportunities for diverse racial and ethnic groups “to get to know one another on an equal footing while working together at a common task” (Etzioni, 1983, p. 161). Researchers, for instance, have found that participation in community service exerts a positive influence on students’ racial understanding, knowledge of different racial groups, and ability to relate with people of different races and cultures (Astin & Sax, 1999); these effects continued to be observed nine years after college entry (Astin, Sax, & Avalos, 1999). Additionally, Myers-Lipton (1996) examined the impact of service-learning on students’ levels of modern racism and uncovered significant pre-posttest decreases, especially compared to students who were not enrolled in a service course.

Studies have also demonstrated the influence that co-curricular events (e.g., diversity workshops) and informal contexts (e.g., residence halls) exert on a range of democratic outcomes. Gurin et al. (2002), for instance, reported that attendance at multicultural events and race dialogues positively predicted students’ compatibility with difference, perspective-taking, and racial/cultural engagement, although the effects were not consistent across racial groups. Other research suggests that participation in a diversity workshop promotes students’ racial understanding (Milem, 1994; Antony, 1993; Hyun, 1994) and openness to diversity (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996; Whit, Edison, Pascarella, Terenzini, & Nora, 1998; Springer, Palmer, Terenzini, Pascarella, & Nora, 1996). Researchers have also noted the influence that living-learning communities exert on students’ openness to diversity (Pike, 2002), self awareness, and interpersonal skills (Pascarella & Terenzini, 1980, 1981). Further, Hurtado et al.’s (2002) study established links between precollege activities, such as studying with diverse peers, engaging in race/ethnic discussion, and participating in student clubs, and

democratic outcomes related to perspective-taking, beliefs that conflict enhances democracy, and the importance of social action engagement.

Conceptual Framework

The central theory underlying this study is that campus diversity experiences create opportunities for learning democratic skills as students encounter departures from their own embedded worldviews (Gurin, et al., 2002). More specifically, Hurtado, Dey, Gurin & Gurin, (2003) present a framework for understanding college environments, diversity, and student learning. Organizational structure, organizational climate and culture, and even student behaviors constituting peer environments can influence student learning of democratic skills. Additionally, other researchers (Weidman, 1987; Hurtado, Milem, Clayton-Pederson, & Allen 1999) have identified the importance of external social influences (e.g., parents, friends, socio-historical events) in contributing to both the campus climate and educational outcomes. These sources of social influence as well as the pre-enrollment characteristics of students (e.g., background and precollege socialization) must be accounted for in assessing the impact of college. Together, these theories provide an organizing framework to understand how specific aspects of the college experience influence democratic outcomes. Figure 1 provides a conceptual schematic of student change based on these theories and the links established by prior research.

<<INSERT FIGURE 1 HERE>>

Methods

Data Source

The data for this study originated from a national research project titled, *Preparing Students for a Diverse Democracy*. Students who participated in the project attended one of ten public universities that varied in geographic location (e.g., Midwest, Northeast, Southwest,

Northwest), size (e.g. 5000 to 20,000 undergraduate enrollment), and student enrollment demographics (e.g. 5% to 95% students of color). Institutions were selected based on the following criteria: a) a strong commitment to diversity initiatives as exemplified through curricular and co-curricular programming; b) recent success in diversifying their student enrollment; and c) a commitment to public service and the development of significant partnerships with the local community.

One of the principal components of the project included a longitudinal survey of students who matriculated during the Fall 2000 academic year. The survey was designed to assess how students' exposure to diversity, through both classroom and interactional diversity, influenced their cognitive, social-cognitive, and democratic learning and development. The first-year survey focused primarily on students' precollege socialization experiences whereas the follow-up survey specifically addressed the impact of the college experience. Students were administered the first-year survey during orientation sessions and additional waves were distributed in courses that attracted a large number of first-year students. The follow-up survey was administered to students at the end of their second year of college using multiple waves of both paper and web-based surveys.

One of the participating campuses was dropped from this study due to extremely low second-year response rates. For the remaining nine campuses, the return rate for those students who responded to the first-year survey was approximately 36% (n=13,520) and the second-year return rate, based on the first-year respondent pool, was 35% (n=4757). The distribution of student respondents, however, varied significantly by institution, ranging from 12% to 81% on the first-year survey and 27% to 45% on the second-year survey. The relatively low return rates reflect the difficulty of conducting longitudinal research at large public universities, especially

those that experience student attrition or find it difficult to maintain updated student contact information. In order to correct for the low response rates and generalize our results to the original sample population, statistical weights were created to account for the probability of students responding to both the first and second year surveys (see analyses section for more details on weighting techniques).

Sample

The longitudinal dataset contained 4403 students who completed both the first- and second-year survey (Table 1 presents descriptive statistics for variables in the analysis). The sample was primarily female (68%) and White (70.8%). Students of color represented 29.2% of the sample population and consisted of Asian (15.8%), Latino (7.8%), African-American (4.7%) and Native American (.9%) students. Students' mean SAT composite score was 1,195 and approximately 80% of their mothers attended college. Additionally, 37% of the sample estimated their family income between \$60,000 to \$99,000 and 30% reported family incomes over \$100,000. The majority of students (61%) also indicated that the racial composition of their friends in high school was mostly or all White.

Students' responses to the first-year survey indicate that approximately 28% of students discussed racial/ethnic issues in high school a few times a week or daily, 40% discussed these issues a few times a month, and the remaining 32% only have such discussions a few times a year or never. Further, a larger number of students (49%) studied a few times a week or daily with a different racial/ethnic group during high school and over 60% indicated similar rates of participation in student clubs. Most students (65%) also rated their ability to negotiate controversial issues as somewhat strong or a major strength. In terms of interactions, 40% and 33% of students reported little or no interactions with diverse peers on the first- and second-year

survey respectively. Responses to the second-year survey also reveal important differences among students in their course enrollment. Whereas 84% of the sample enrolled in one or more courses that included readings on race/ethnic issues, only 37% enrolled in one or more courses that included an experience serving communities in need. Further, over 70% of the students in the sample enrolled in one or more courses that included opportunities for intensive dialogue between students with different backgrounds and beliefs.

<<INSERT TABLE 1 HERE>>

Measures

Table 2 lists the variable names, types, and scales for each of the dependent and independent variables in the analysis. Three dependent variables were used in this study to measure democratic outcomes: Perspective-taking, Beliefs that Conflict Enhances Democracy, and Importance of Social Action Engagement. Each democratic outcome was a scaled index of multiple items that appeared in both the first- and second-year survey. The first dependent measure, perspective-taking, is a shortened version of a longer scale of empathy that was developed by Davis's (1983). The Davis scale is internally reliable and has both discriminant and convergent validity. The other dependent variables were replicated from Hurtado et al.'s (2002) earlier study, which presented new measures for monitoring democratic outcomes among students (see Table 3 for item wording, factor loadings, and reliabilities of the dependent measures).

<<INSERT TABLE 2 HERE>>

<<INSERT TABLE 3 HERE>>

Institutional data was gathered from all of the participating institutions on student demographic variables related to gender, race, and SAT scores, rather than relying on self-

reported student data. As a proxy for socioeconomic status, we relied on students' self-reported family income and mother's level of education. We dummy-coded both family income and mother's education and used the upper-income and graduate school classifications as referent groups respectively. Additionally, we dummy-coded gender and race and used male and White students as referent groups.

A number of independent measures were derived through exploratory factor analysis (see Table 4 for item wording, factor loadings, and reliabilities). Additionally, interaction measures were created to reflect students' interactions with diverse peers in both the first- and second-year survey. Interactions measures reflect a composite measure of the total frequency in which students interacted with racial groups other than their own. Students' precollege socialization experiences were continuous measures that were replicated from Hurtado et al.'s (2003) study. These measures reflected the frequency in which students participated in a number of precollege diversity-related activities, the racial composition of their precollege friendship group, and their self-rated ability at negotiating controversial issues.

In order to measure the structural diversity among the participating institutions, a dummy-coded variable was created that compared three levels of structural diversity: low (less than 25% students of color); moderate (between 25-35% students of color); and high (over 35% students of color). The frequency of student enrollment in diversity-related courses was measured using three different continuous variables and included courses that focused on readings and materials on diversity issues, serving communities in need, and intensive dialogue around issues of race. Finally, we included a count variable that measured students' involvement in activities surrounding the events of September 11th. This item measured the total number of

activities that student participated that included: donating blood, attending a panel discussion, attending a campus vigil, or participating in activities to help others.

<<INSERT TABLE 4 HERE>>

Data Analysis

Missing data analysis revealed a small range of missing data (1% to 11%) across all variables in the model. In order to maintain statistical power, missing values for all continuous variables were replaced using the EM algorithm. The EM algorithm represents a general method for obtaining maximum likelihood (ML) estimates when a small proportion of the data is missing (Dempster et al., 1997; McLachlan & Krishnan, 1997 as cited in Allison, 2002). The EM algorithm consists of two steps, an expectation step and a maximization step, that are repeated multiple times in an iterative process that eventually converges to the ML estimates. Unlike conventional regression imputation, in which decisions must be made on which variables to use as predictors, the EM algorithm starts with a full covariance matrix and uses all available variables as predictors for imputing missing data.

Statistical weighting techniques were used in order to correct for low survey response rates. The weighting procedure required three steps: a logistic regression analysis to obtain predicted probabilities of responding in year 1 and year 2, post-stratification weighting, and a weight adjustment technique. Researchers employ this weighting technique to adjust the sample upward to the original population, thereby ensuring that low responding groups (e.g., race/ethnic groups) are weighted to reflect the original population (Babbie, 2001; Kish, 1965). The general formula used to develop the weight variable is: Total weight = (1/probability of selection* 1/predicted probability of non-response* post-stratification weight).

The weight variable used for this study accounted for the probability of students responding to both the first and second year surveys. In order to ensure that the weighted sample did not produce incorrect standard errors and inflated t-statistics results, due to a larger weighted sample size, an adjusted weight variable was also created. The adjusted variable reflects the total weight variable divided by the mean of the total weight variable for all groups. This adjustment reflects a closer approximation of the original sample size and still results in a variable that weights respondents proportionally to account for non-response in specific groups.

Exploratory factor analysis, using principal axis factoring and a Varimax rotation, was conducted in order to create scaled indices across different question sets in the two surveys. Items loadings that were higher than .40 were retained and developed into scaled indices. The internal validity of the factor scales was high for most scales, with Cronbach's alpha reliabilities ranging from .54 to .83. Factor scales were computed using the regression method and saved as standardized scores.

As a preliminary test prior to regression analysis, paired samples t-test were conducted on each first- and second-year dependent measure to determine if there were significant mean differences. Next, a hierarchical, blocked regression technique was used to investigate the impact of each set of independent measures on the three democratic outcomes. The first block included the first-year (pretest) measure of each dependent variable in order to control for individual changes that occurred during students' college experience. The next six blocks individually examined the relative contribution of each set of independent measures: background and demographic characteristics, precollege socialization, institutional characteristics and climate, college interactions with diverse peers, curricular and co-curricular college context, and societal influences. We also tested the reliability of the regression model using Variance

Inflation Factors (VIF) and residual plots to test for multicollinearity and heteroscedasticity respectively.

Limitations

This study relies on students' self reported data for several of the variables in our model. Although some researchers argue that self-reported data does not accurately reflect students' actual beliefs or behaviors, previous studies suggest that self-report measures are appropriate proxies in attempting to determine policy (Ewell & Jones, 1993). In order to address this limitation, we supplemented our survey data with institutional data on students' gender, race, and SAT scores. These objective measures were also used to develop statistical weight variables for the sample.

Low response rates were also a limitation of this study. In order to correct for potential non-response bias, weighting techniques were used to improve the sample estimation of the population. Researchers suggest that weighting procedures are a statistically valid method to reduce response bias (Kish, 1965). The weighting technique also allows for the generalization of students' responses to the larger first-year population of participating institutions.

This study is also limited to nine public research universities, which offer a residential option for students. The experiences of commuter, part-time, or working adults may not be well-served by these relatively traditional delivery systems, although most of the campuses now offer some courses toward the degree online. The investigation of the development of democracy outcomes at a broader array of institutions, including community colleges, awaits analysis in the future.

Results

Table 4 presents the results from the paired samples t-tests of mean differences across the three dependent variables. All three outcomes showed significant mean differences ($p < .001$) from the time of matriculation to the end of the second year of college. In each case, students increased their mean scores over the first two years of college, providing a strong rationale to examine college experiences that might help explain student change.

<<INSERT TABLE 5 HERE>>

Table 5 displays the results from the three hierarchical multiple regressions. In each model, we controlled for the pretest of the democratic outcome under investigation, background characteristics, and students' precollege socialization experiences. Further, the results that follow are based on the final regression model after entering each block. Our first regression model explained approximately 24% of the variance in the perspective-taking scale, $F(30, 4372) = 46.84, p < .001$, and each blocked entry explained a significant change in the model. The inclusion of the pretest accounted for most of the explained variance in background variables and precollege socialization (cf. Hurtado, et al., 2002) with the exception of the effect found for Latino/a students; after two years of college, Latino/a students were more likely than their White counterparts to score higher on the perspective-taking scale ($p < .05$).

Controlling for students' predispositions and background characteristics, we uncovered a significant effect for the institutional climate for diversity ($p < .001$). Students, for instance, who perceived high levels of racial tension and discrimination on campus scored lower on the perspective-taking scale, emphasizing the negative consequences of a hostile racial climate on student development. The strongest effects in the model, however, emanated from students' experiences interacting with diverse peers. In particular, our results show that the quality of

students' interactions with diverse peers imparts the most change, over and above the overall frequency of student interaction. The extent to which students engage in interactions with diverse peers that are personable, meaningful and honest, rather than guarded or tense, predicts a large portion of their growth in perspective-taking. The informal context for student interaction was also a significant predictor in our model ($p < .05$), demonstrating the value of students' interactions with diverse peers in less structured and more opportunistic contexts. Further, the more formal context for diversity, which included courses with diversity readings ($p < .01$) or an intergroup dialogue component ($p < .01$), was also a positive determinant of students' perspective-taking. Courses such as these seem to provide the type of "discrepancy" that Piaget (1975/1985) described as being necessary to spur cognitive growth. Finally, students' participation in campus events related to September 11th produced a highly significant ($p < .001$) positive effect on their perspective-taking, lending credence to the importance of controlling for outside social forces that may constitute a period effect.

<<INSERT TABLE 6 HERE>>

Our second model examined the influence of the college experience on students' beliefs that conflict is a normal part of a democracy. Our model accounted for 22% of the variance in students' view that the conflict enhances democracy, $F(30, 4372) = 40.39, p < .001$, and each blocked entry explained a significant change in the model. In this model, students' SAT scores remained a highly significant ($p < .001$) positive predictor of their beliefs about conflict, even after controlling for their pretest score. Similar to the perspective-taking model, a more hostile racial climate predicted lower scores on students' beliefs about conflict in a democracy. Additionally, both the frequency ($p < .001$) and quality ($p < .05$) of students' interactions with diverse peers were significant predictors of their beliefs about conflict. Unlike the previous

model, it was more the frequency than the quality of interactions that predicted students' beliefs, suggesting that many types of interactions contribute to students' view that conflict enhances democracy. Like the perspective-taking model, student engagement in curricular activities that included either diversity readings or an intergroup dialogue component was highly significant ($p < .001$) positive predictors of students' beliefs about conflict. The period effect, due to participation in activities related to September 11th, remained highly significant ($p < .001$) in this model as well.

In the final regression model, we examined how the college experience influences the importance students' place on taking social action. Our model accounted for 37% of the total variance in the social action engagement scale, $F(30, 4372) = 86.1$, ($p < .001$), and each regression block produced a significant change in the model. In this model, it is important to note that several of the background characteristics remained significant even after controlling for the pretest. Females, for instance, were more likely than males to place an importance on social action engagement ($p < .001$) as were students who scored higher on the SAT (or its equivalent) ($p < .001$). Two years after college entry, low-income students ($p < .01$) compared to high-income students were more likely to value social action engagement. Further, students' socioeconomic status, as expressed through mother's education, exerted a powerful influence on social action engagement. In particular, students who came from families where their mother had either a high school or college level of education were less likely to place importance on social action engagement compared to students whose mothers attended graduate school. This suggests some non-linear effects in the model where education and income have distinct effects. When parental education is controlled, we see that the lowest income students are committed to social action.

But it may also be that students from households with advanced education tend to value and feel empowered to engage in social change.

Students attending institutions with moderate levels of structural diversity were less likely to value compared to institutions with higher levels of structural diversity ($p < .05$). As the number of students of color increase on a campus, students may feel more comfortable and secure in their commitments to promoting social justice. Similar to the other two models, students' frequency ($p < .01$) and positive quality ($p < .001$) of interaction with diverse peers were highly significant and positively related to social action engagement; their negative interactions, however, were not significant. Unlike the previous models, students who attended diversity-focused co-curricular events ($p < .001$) or participated in activities serving communities of need ($p < .001$) placed greater importance on taking social action. The positive influence of community service is not surprising, especially given the congruence among many community service activities and the items that make up the social action engagement scale. Moreover, participation September 11th events exerted a significant influence on students developing importance of social action engagement ($p < .001$).

Discussion

Our study begins to document how colleges intentionally (as well as unintentionally) prepare students to participate in an increasingly diverse democracy with complex social issues. After two years of college, we noted changes in students' capacity to assume another's point of view, beliefs that conflict is a normal part of a diverse democracy, and personal values attributed to engaging in wide variety of activities to create social awareness and improve local communities. We hold that each of these skills and dispositions are important to citizenship in a pluralistic democracy. While students demonstrated the most change in their capacity for

perspective-taking, our model accounted for more of the explained variance in the importance students' place on taking social action; most of the explained variance is directly related to students' experiences during college, including campus-based and community activities surrounding the events of September 11th. It is important to note that campuses responded to the terrorist attacks with specific vehicles that allowed students to express their commitment to social action and willingness to help others. As a result, this generation of students may develop in ways unique to previous cohorts. Indeed, the activities surrounding September 11th influenced the three democratic dispositions among students in this study and, no doubt, many other types of outcomes associated with diversity, learning, and democracy. More research is needed in this area, including campus responses to socio-historical events and whether findings regarding college student development in previous eras are associated with period effects.

While students' predispositions continue to be the key determinant of students' democratic learning, these predispositions account for most of the explained variance in students' precollege socialization as well as the effects of student background characteristics (cf. Hurtado et al., 2002). This emphasizes the fact that much of students' democratic learning happens before college, although gender, income, and parental education differences continue to have direct effects on the value students place on social action engagement. Yet even in the first two years of college, we can find examples that extend the civic purposes of higher education. First, the results of this study reinforce the overall notion that learning and development results from students' interaction with diverse peers. This extends previous research (Gurin et al., 2002; Hurtado, 2001; Hurtado, et al., 2002) using students who completed their second year of study at one of nine public research universities (many of them flagships in their state), two of which have ceased to use race as a factor in college admissions. The results suggest that continued

efforts are necessary to provide college opportunities for students to encounter a diverse peer group, or microcosm of the work and social places they will encounter after graduation. Such opportunities help students learn about group similarities and differences, break down stereotypical views, and begin to understand the importance of achieving a more equitable society through democratic processes.

Second, results from the analyses also begin to substantiate the importance of the *quality* of students' interactions with diverse peers. That is, colleges that are successful in diversifying their student body must provide opportunities for positive engagement across differences inside and outside the classroom. The extent to which students engage in meaningful, honest, and intellectual discussions in which they share their personal feelings and problems will directly influence their democratic learning and development. Many of these types of interactions are likely to occur in courses that include diversity readings and materials as well as those courses that include an intensive experiential component, such as an intergroup dialogue or service component. It is interesting to note, however, that students' view of whether conflict enhances democracy is influenced most by the *frequency* of interaction with diverse peers (including both positive and negative experiences). This suggests that a healthy view of conflict derives from many types of interactions as students gain experience in negotiating differences.

Third, educators must become more intentional about civic education in college. If educators leave interactions to chance, students are likely to conform to established or referent peer groups that are familiar to them—particularly those that are unsure of themselves or their place in a large campus environment. This is especially true in more hostile racial climates, where students are less likely to engage in perspective-taking (reverting to comfortable positions) or believe that conflict is healthy in a democracy. Efforts to improve the climate, therefore, are

capable of creating safer educational environments for interacting across difference—environments where resolution of conflict becomes a learning opportunity—especially when they are facilitated campus-wide or in classrooms where differences of experience, background, and opinion can be shared. Service learning and intergroup dialogue are such activities that introduce students to difference, social problems, and their role in becoming allies in creating a solution. Students are eager to respond when provided with the vehicles for learning and engagement, as was clearly demonstrated in the window of time that constituted a specific national crisis. Part of higher education's civic role is to ensure that future citizens do not revert to protective stances, but rise to the challenges that constitute a national crisis in education, health, and equitable economic development.

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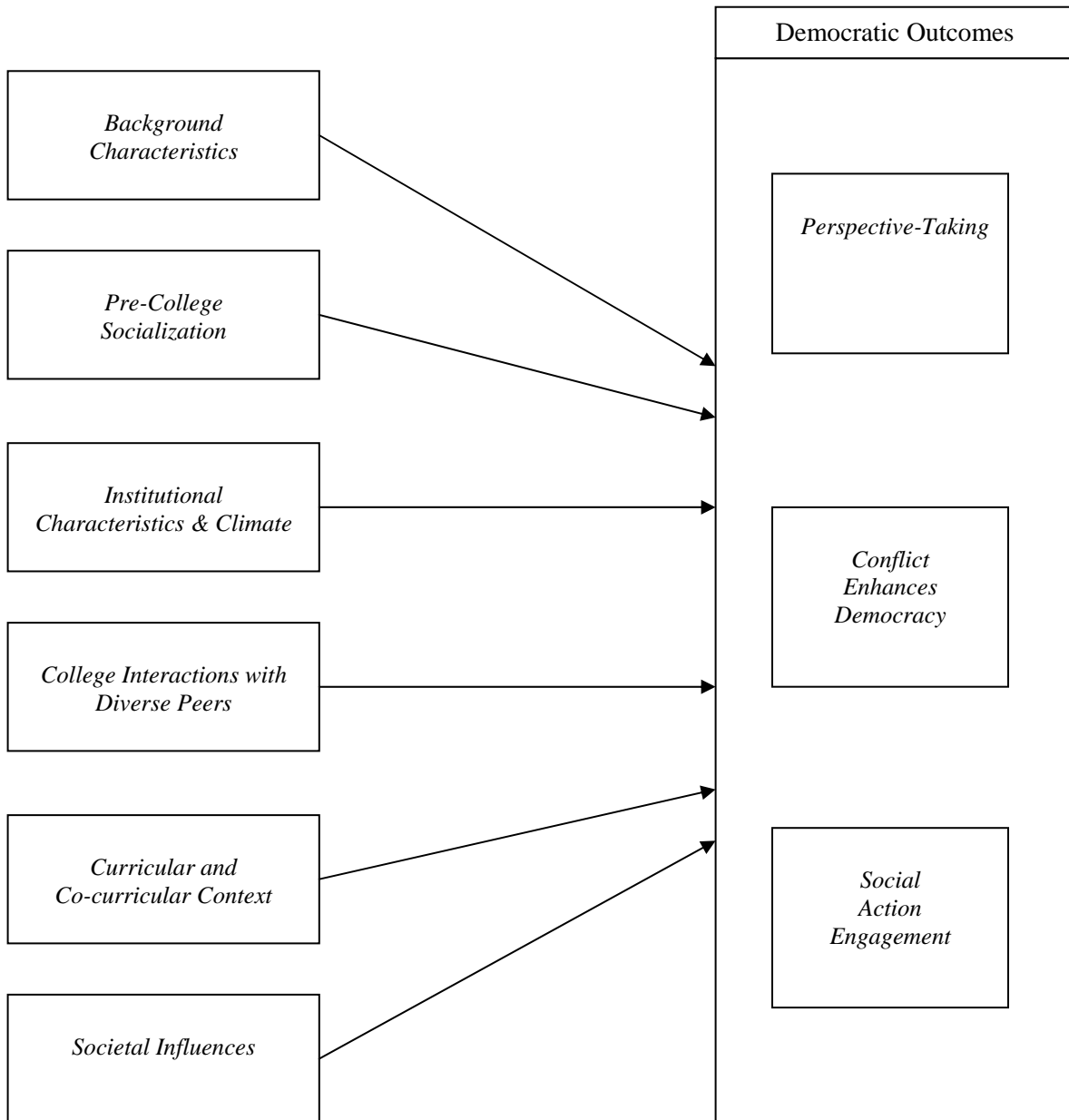


Figure 1. Conceptual Framework for Understanding the Influence of the College Experience on Students' Preparation for a Diverse Democracy

Table 1. Descriptive Statistics for Variables in the Model (n= 4403)

Variable Name	Mean	Standard Deviation
Dependent Variables		
Perspective- taking (year 1)	1.80	.301
Perspective- taking (year 2)	1.86	.299
Conflict enhances democracy (year 1)	1.91	.269
Conflict enhances democracy (year 2)	1.93	.267
Importance of social action engagement (year 1)	1.76	.345
Importance of social action engagement (year 2)	1.79	.359
Independent Variables		
<i>Student Background Characteristics</i>		
SAT score	1167	175.854
<i>Pre-College Socialization</i>		
Interaction with diverse peers	2.53	.593
Racial composition of friendship group	3.68	1.090
Participated in student clubs	3.59	1.236
Studied with different race/ethnic group	3.37	1.357
Participated in race/ethnic discussions	2.99	.968
Able to negotiate controversial issues	3.83	.905
<i>Institutional Characteristics and Climate</i>		
Negative college climate for diversity	.490	.271
<i>College Interactions with Diverse Peers</i>		
Positive quality of interaction	2.44	.826
Negative quality of interaction groups	1.09	.451
Interaction with different race/ethnic group	2.60	.506
Informal context for interaction	2.18	.611
<i>Curricular and Co-Curricular Context</i>		
Participation in co-curricular diversity programs	1.08	.485
Courses that focus on community service	1.47	.742
Courses with readings on diversity issues	2.62	1.015
Courses with an intensive dialogue focus	2.31	1.087
<i>Societal Influences</i>		
Student's participation in September 11 th events	.878	.966

Table 2. Summary of Variables and Indices in the Research Model

Variable name	Variable type	Scale Range
<i><u>Dependent Democratic Outcomes</u></i>		
Perspective-taking	Scaled index, four items	1=Strongly disagree to 4=Strongly agree
Conflict enhances democracy	Scaled index, five items	1=Strongly disagree to 4=Strongly agree
Importance of social action engagement	Scaled index, seven items	1=Not important to 4=Essential
<i><u>Student Background Characteristics</u></i>		
Gender	Dichotomous	0=Male, 1=Female
Race/ethnicity	Dummy-coded	Native American, African American, Asian, Latino students White students (referent group)
Estimated family income	Dummy-coded	Low income (0-\$19,999), Middle income (\$20,000-\$59,999), Upper-middle income (\$60,000-\$99,999), Upper income (>\$100,000) (referent group)
SAT score	Single-item, continuous	Composite SAT score or converted ACT score (400-1600 scale)
Mother's level of education	Dummy-coded	High school College Graduate (referent group)
<i><u>Pre-College Socialization</u></i>		
Interaction with diverse peers	Single-item, continuous	1=None to 4=Substantial interaction
Racial composition of friendship group	Single-item, continuous	1=All People of Color to 5=All White friends
Participated in race/ethnic discussions	Single-item, continuous	1=Never to 5=Daily
Participated in student clubs	Single-item, continuous	1=Never to 5=Daily
Studied with different race/ethnic group	Single-item, continuous	1=Never to 5=Daily
Ability to discuss controversial issues	Single-item, continuous	1=Major weakness to 5=Major strength

Table 2. Summary of Variables and Indices in the Research Model (continued)

Variable name	Variable type	Scale Range
<i><u>Institutional Characteristics and Climate</u></i>		
Level of Structural diversity	Dummy-coded	Low diversity Moderate diversity High diversity (referent group)
Negative college climate for diversity	Scaled index, three items	1=Strongly disagree to 4=Strongly agree
<i><u>College Interactions with Diverse Peers</u></i>		
Positive quality of interaction	Scaled index, three items	1= Never to 5= Very often
Negative quality of interaction groups	Scaled index, three items	1= Never to 5= Very often
Interaction with different race/ethnic group	Composite index, continuous	1=None to 4=Substantial interaction
Informal context for interaction	Scaled index, four items	1= Never to 5= Very often
<i><u>Curricular and Co-Curricular Context</u></i>		
Participation in co-curricular diversity programs	Scaled index, three items	1= Never to 5= Very often
Courses that focus on community service	Single-item, continuous	1= no courses to 4= three or more courses
Courses with readings on diversity issues	Single-item, continuous	1= no courses to 4= three or more courses
Courses with an intensive dialogue focus	Single-item, continuous	1= no courses to 4= three or more courses
<i><u>Societal Influences</u></i>		
Student's participation in September 11 th events	Count item, continuous	0=no participation, 4= participation in all activities

Table 3. Factor Loadings and Reliabilities for Dependent Variables (n= 4403)

	Factor Loadings	
	Year 1	Year 2
	(alpha)	(alpha)
<i>Perspective Taking</i> ^a	(.65)	(.66)
There are two sides to every issue and I try to look at them both	.746	.723
I try to look at everybody's side of a disagreement before I make a decision	.713	.771
When I'm upset at someone, I usually try to "put myself in their shoes" for a while	.462	.516
I sometimes find it difficult to see the "other person's" point of view ^b	-.410	-.362
<i>Conflict Enhances Democracy</i> ^a	(.72)	(.72)
Democracy thrives on differing views	.725	.731
Conflicting perspectives are healthy in a democracy	.653	.696
Conflict between groups can have positive consequences	.593	.580
Building coalitions from varied interests is key to a working democracy	.536	.535
Conflict is a normal part of life	.392	.397
<i>Social Action Engagement</i> ^c	(.81)	(.82)
Speaking up against social injustice	.742	.753
Promote racial tolerance	.715	.678
Volunteer with community groups	.712	.717
Work to end poverty	.691	.722
Work in low income communities	.668	.712
Contribute money to a charitable cause	.659	.625
Aware how people affect environment	.627	.625

^a Four-point scale: From Strongly disagree = 1 to Strongly agree = 4.

^b This item was reversed for scaling of the index.

^c Four-point scale: From Not important = 1 to Essential =4.

Table 4. Factor Loadings and Reliabilities for Independent Variables (n=4403)

Factor Scales and Item Wording	Factor Loadings
	(alpha)
<i>Negative Climate for Diversity</i> ^a	(.54)
I have been singled out in class because of my race/ethnicity, gender or sexual orientation	.577
There is a lot of racial tension on the University campus	.526
I have heard faculty express stereotypes about racial/ethnic groups in class	.494
<i>Positive Quality of Interactions</i> ^b	(.83)
Had intellectual discussions outside of class	.841
Shared personal feelings and problems	.778
Had meaningful and honest discussions about race/ethnic relations outside of class	.746
<i>Negative Quality of Interactions</i> ^b	(.69)
Had tense, somewhat hostile interactions	.757
Had guarded, cautious interactions	.607
Felt insulted or threatened based on my race or ethnicity	.607
<i>Informal Context of Interaction</i> ^b	(.76)
Socialized or partied	.760
Dined or shared a meal	.732
Studied or prepared for class	.671
Attended events sponsored by other racial/ethnic groups	.520
<i>Participation in co-curricular diversity programs</i> ^b	(.68)
Campus organized discussions on racial/ethnic issues	.841
Diversity awareness workshops	.779
Events or activities sponsored by groups reflecting your own cultural heritage	.431

^a Four-point scale: From Strongly disagree = 1 to Strongly agree = 4.

^b Five-point scale: From Never = 1 to Very Often = 5.

^c Four-point scale: From Not important = 1 to Essential = 4.

Table 5. Paired Samples T-test (n=4403)

Dependent Variables	Mean		Mean Difference	Standard Deviation
	Year 1	Year 2		
<i>Perspective Taking</i>	1.79	1.86	.06***	.004
<i>Conflict Enhances Democracy</i>	1.91	1.92	.01***	.004
<i>Social Action Engagement</i>	1.76	1.79	.02***	.005

*p<.05, **p <.01, ***p< .001

Table 6. Results of Blocked Hierarchical Regression for Democratic Outcomes (N=4403)

Variable	Standardized Coefficients for Regression Predicting:					
	Perspective-taking		Conflict Enhances Democracy		Social Action Engagement	
	beta	SE	beta	SE	beta	SE
<i>Pretest</i>	.418***	.014	.361***	.014	.449***	.013
	R ² = .206***	R ² = .206***	R ² = .174***	R ² = .174***	R ² = .291***	R ² = .291***
<i>Background Characteristics</i>						
Female	.004	.024	-.013	.024	.050***	.023
Native American (White)	-.021	.107	-.008	.109	.014	.103
African American (White)	.013	.056	.009	.057	-.004	.054
Asian Pacific American (White)	-.009	.035	-.023	.036	-.022	.034
Latino/a (White)	.030*	.044	.003	.045	.025	.042
Low Income (High)	.006	.052	.013	.053	.038**	.050
Middle Income (High)	.003	.029	.000	.029	-.004	.028
Upper-Middle Income (High)	-.021	.029	.004	.029	-.003	.027
SAT Score	-.006	.000	.082***	.000	.049***	.000
Mother's Ed.: High School (Grad)	.011	.060	-.020	.062	-.120***	.058
Mother's Ed.: College (Grad)	.035	.059	.006	.060	-.091**	.056
	R ² = .211***	R ² = .004***	R ² = .184***	R ² = .010***	R ² = .307***	R ² = .015***
<i>Pre-college Socialization</i>						
Interaction with Diverse Peers	-.008	.023	-.004	.024	.018	.022
White Friendship Group	-.032	.013	-.002	.013	-.020	.012
Participate in Race/Ethnic Disc.	.013	.013	.023	.013	.003	.013
Participate in Student Clubs	-.003	.010	.017	.010	-.004	.009
Studied with Race/Ethnic Groups	-.002	.010	-.005	.010	-.024	.010
Discussed Controversial Issues	.021	.013	.026	.014	.011	.013
	R ² = .215***	R ² = .004***	R ² = .191***	R ² = .006***	R ² = .312***	R ² = .006***
<i>Institutional Characteristics/Climate</i>						
Mod Structural Diversity (High)	-.006	.029	-.013	.030	-.034*	.028
Low Structural Diversity (High)	.019	.029	.017	.030	.027	.028
Negative Climate for Diversity	-.062***	.018	-.034*	.018	-.014	.017
	R ² = .220***	R ² = .005***	R ² = .193***	R ² = .002*	R ² = .317***	R ² = .004***

Table 6. Results of Blocked Hierarchical Regression for Democratic Outcomes (N=4403) (continued)

Variable	Standardized Coefficients for Regression Predicting:					
	Perspective-taking		Conflict Enhances Democracy		Social Action Engagement	
	beta	SE	beta	SE	beta	SE
<i>College Interactions w/Diverse Peers</i>						
Positive Quality of Interactions	.089***	.021	.015*	.022	.084***	.020
Negative Quality of Interactions	-.073***	.015	-.038*	.016	-.027	.015
Frequency of Interactions	.036	.025	.054***	.026	.038**	.024
Informal Context for Interaction	.002*	.022	.018	.022	.004	.021
	R ² = .235***	R ² = .015***	R ² = .204***	R ² = .012***	R ² = .336***	R ² = .019***
<i>Curricular/Co-Curricular Context</i>						
Co-Curricular Diversity Events	.010	.015	-.027	.015	.085***	.014
Serving Communities in Need	.015	.016	-.012	.017	.065***	.016
Intensive Dialogue	.043**	.012	.063***	.013	.018	.012
Courses w/Diversity Read/Material	.043**	.013	.063***	.014	.069***	.013
	R ² = .242***	R ² = .007***	R ² = .215***	R ² = .011***	R ² = .362***	R ² = .027***
<i>Societal Influences</i>						
Participate in Sept. 11 th Events	.040**	.012	.050***	.013	.088***	.012
	R ² = .243***	R ² = .001***	R ² = .217***	R ² = .002***	R ² = .369***	R ² = .006***

*p< .05, **p< .01, ***p< .001.

Parentheses indicate referent group used for comparison.